

REMARKS

The Office Action mailed June 6, 2007 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

Drawing Objection

The drawing figures were objected because reference character "24" is allegedly used to designate both "power supply terminals" and "a comparator". This is in fact an inadvertent numbering error in the claims, not the drawings. Claim 5 has accordingly been corrected to refer to comparator 29, consistent with FIG. 4.

Rejection(s) Under 35 U.S.C. § 102

Claims 1-6, 10 and 12 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Kumazawa (U.S. pat. no. 4,727,256).

It will be appreciated that, according to the M.P.E.P., a claim is anticipated under 35 U.S.C. § 102 only if each and every claim element is found, either expressly or inherently described, in a single prior art reference.¹ Claim 1, from which the remaining claims depend, recites a differentiator stage that is "directly connected to the assembly formed with the integrator and means for controlling the integration time." This feature is not disclosed in Kumazawa. Rather, between the differentiator stage 131 and the integrator stage of Kumazawa, there is disposed a circuit portion including a delay circuit/amplifier 100 and a second integrator amplifier 132. Moreover, in Kumazawa, the differentiator stage 131 and the second integrator amplifier 132 constitute as a whole an amplifier including a quasi Gaussian filter (see column 8, lines 33-39). The filter functions in a continuous manner and the time control has an effect only on the assembly with the second integrator amplifier. The filter function is permanent.

In the present application, the differentiator stage and the assembly formed with the integrator and means for controlling the integration time have the filter function and said filter

¹ Manual of Patent Examining Procedure (MPEP) § 2131. See also *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

function is not permanent. The filter function exists only when an impulsion occurs, i.e. when a particle is detected.

In the present application the filter is centered on a frequency adapted to each pulse of the detector current. Consequently the time constants of the filter are self-adaptive, as clearly set forth in Claim 1.

In Kumazawa, the filter is centered on a fixed predetermined value, said value being the same whatever the pulse width may be. Kumazawa does not teach or suggest the use of a self-adaptive filter.

As stated above, according to the M.P.E.P., a claim is anticipated under 35 U.S.C. § 102 only if each and every claim element is found, either expressly or inherently described, in a single prior art reference. The aforementioned reasons clearly indicate the contrary, and withdrawal of the 35 U.S.C. § 102 rejection based on Kumazawa is respectfully urged.

Rejection(s) Under 35 U.S.C. § 103 (a)

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kumazawa (U.S. pat. no. 4,727,256) in view of Lingren (U.S. pat. no. 6,172,362).

Claims 7 and 8 depend variously from independent Claim 1 discussed above. Lingren fails to remedy the above-mentioned shortcomings of Kumazawa with respect to Claim 1. Accordingly, Claims 7 and 8 are patentable over the combination of these references.

Claim 9 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kumazawa (U.S. pat. no. 4,727,256) in view of Weirauch (U.S. pat. no. 5,920,071).

Claim 9 also depends from independent Claim 1 discussed above. Weirauch fails to remedy the above-mentioned shortcomings of Kumazawa with respect to Claim 1. Accordingly, Claim 9 is patentable over the combination of these references.

Claim 11 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kumazawa (U.S. pat. no. 4,727,256) in view of Verger (U.S. pat. no. 6,420,710).

Claim 11 also depends from independent Claim 1 discussed above. Verger fails to remedy the above-mentioned shortcomings of Kumazawa with respect to Claim 1. Accordingly, Claim 11 is patentable over the combination of these references.

Conclusion


In view of the preceding discussion, Applicants respectfully urge that the claims of the present application define patentable subject matter and should be passed to allowance.

If the Examiner believes that a telephone call would help advance prosecution of the present invention, the Examiner is kindly invited to call the undersigned attorney at the number below.

Please charge any additional required fees, including those necessary to obtain extensions of time to render timely the filing of the instant Amendment and/or Reply to Office Action, or credit any overpayment not otherwise credited, to our deposit account no. 50-1698.

Respectfully submitted,
THELEN REID BROWN RAYSMAN & STEINER LLP

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Khaled Shami
Reg. No. 38,745

THELEN REID BROWN RAYSMAN & STEINER LLP
P.O. Box 640640
San Jose, CA 95164-0640
Tel. (408) 292-5800
Fax. (408) 287-8040